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CHAPTER FOUR

ANALYSIS

INTRODUCTION

1. The Analysis chapter of this research will probe into the numerous factors that contribute to the job retention of middle grade officers in combat, combat support and combat service support elements of Sri Lanka army. This chapter will provide quantitative analysis to identify the independent variables that may potentially lead to individuals desire to retain in the Army. The independent variables to be examined include the 'intrinsic rewards' and 'extrinsic rewards'. Through the use of statistical analysis utilizing SPSS, this chapter aims to investigate the validity of these variables, as well as explore any correlations and regressions that may exist between them and 'job retention'. Descriptive and inferential data analysis methods shall be used to find out how the important variables including psychological state, social state, economic stat and adequacy of compensation and benefits are related.

2. To initiate with, the analysis will be focusing on assessing how employee rewards influence the job retention of middle grade officers in the Sri Lanka Army. To maintain an efficient and experienced military workforce it requires an understanding on the motivational factors that drive officers to stay with the service. Based on previous researches and theoretical illustrations, this study defines that the key independent variables that would have an impact on the officers' retention, the dependent variable are 'intrinsic' and 'extrinsic' rewards.

3. The intrinsic rewards, in other words the internal psychological achievements and motivation those officers experience in their profession, will be the key concern of the first segment of the analysis. Three main dimensions are basically used to quantify them:

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personal growth, sense of accomplishment, and recognition. Officers' own feelings on their value and appreciation for their endeavors and accomplishments are evaluated via the recognition. The amount at which officers experience the notion of fulfillment and purpose in their work always reflects in their sense of accomplishment. Self-improvement, opportunities for education, and the development of employee's professional and personal skills are considered in the form of personnel goal. A Likert scale based questionnaire survey has been used to collect quantitative data. Further, a statistical analysis explicitly, regression analysis is used to assess the relevance and strength of the relationship between the 'job retention intention' and intrinsic rewards.

4. The investigation will then look at extrinsic rewards, which include material advantages and organizational services that support a middle grade officer's long-term engagement and job satisfaction. Benefits, Job Security, Career Advancement, and Financial Compensation are the four main indications evaluated under this category. Salary, bonuses, and benefits like overseas assignments are all examples of financial compensation. Opportunities for professional growth and promotion within the Army organization are referred to as career advancement. Perceptions of stability and duration in their positions are evaluated by job security. Benefits include paid time off, retirement programs, health insurance, and other non-cash advantages. Additionally, validated Likert-scale items will be used to measure these aspects. To find out how much extrinsic benefits affect officers' decisions to stay in service, quantitative methods will be used in the analysis.

5. Further, the study employs **correlation** and **regression analyses** to assess the predictive power and the statistical significance of extrinsic and intrinsic rewards on the dependent variable 'retention'. In addition to examining the individual impact of each reward type, the combined effect will be explored to identify which form of reward serves as a stronger determinant of officer retention. This dual-layered approach assessing both internal and external motivators aims to provide a comprehensive understanding of how the reward structure shapes retention behaviors within the military context.

6. Through this analytical framework, the research seeks to offer evidence-based insights into how tailored reward strategies can enhance retention among middle-level officers in the Sri Lankan Army. Ultimately, this chapter will contribute to broader efforts to reduce attrition, improve morale, and promote organizational stability through strategic human resource interventions.

DEMOGRAPHIC OVERVIEW

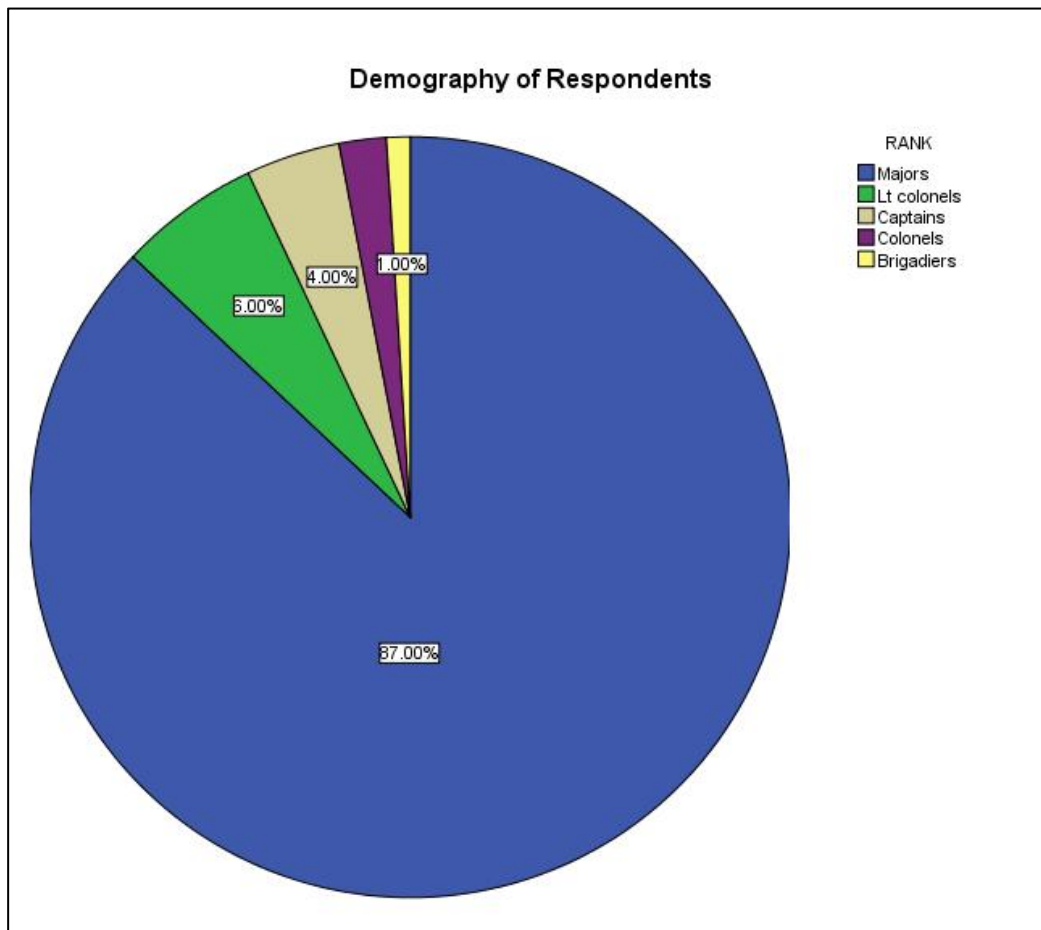


Figure 1 Demography Data

7. The demographic data of the sample reveals key insights into the composition of Sri Lanka Army officers from various categories such as staff, instructional and command responded on the issue. The majority of respondents were in the rank of Majors (87.00%) and the officers in the ranks of Brigadiers represent a smaller fraction (1.00%). The sample is also covered with 6% of Lieutenant Colonels, and 4% Captains.

RELIABILITY ANALYSIS

Table 4.1: Reliability Statistics

Variable	Cronbach's Alpha	N of Items
Retention Intention	.802	4
Intrinsic Rewards	.871	12
Extrinsic Rewards	.802	12

Source: Developed by Author

8. The reliability analysis ensures the consistency of the measurement instruments used in this study. Cronbach's Alpha, a common metric for assessing internal consistency, with values above 0.5 being acceptable and those above 0.7 indicating good reliability, was used for all scales.

9. Overall, the reliability analysis shows that all scales have good internal consistency, with Cronbach's Alpha values well above 0.7. This high reliability minimizes measurement errors and strengthens the validity of the study's findings, allowing for confident interpretation of the results.

DESCRIPTIVE STATISTICS

10. The descriptive analysis of the three key variables- extrinsic rewards, intrinsic reward and job retention provides crucial insights into officer's desire.

Table 4.2: Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Skewness	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error
RI	200	2.00	3.00	5.00	4.3100	.48420	-.352	.172
IR	200	1.50	3.50	5.00	4.3358	.35186	-.802	.172
ER	200	1.42	1.50	2.92	2.3379	.23185	-.554	.172
Valid N (listwise)	200							

Source: Developed by Author

11. Retention Intention mean value 4.31, indicating moderate motivational level including varying other motives, though the mean score of 2.3 for Extrinsic Rewards highlights concerns about the level of motivation among middle grade officers. Intrinsic Rewards, with a mean score of 4.33 for increased internal psychological gains received by employees/middle grade officers while performing their job, which contribute to personal satisfaction and self-motivation. Standard deviations across all variables suggest significant variability in individual experiences.

CORRELATION ANALYSIS

12. Correlation analysis is used to identify relationships among variables. The Pearson Correlation value represents the strength of the relationships between variables. The values can be from -1 to +1. These values should have a significance value less than

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0.05 to be statistically significant. +1 indicates a perfect positive correlation. On the other hand, -1 indicates a perfect negative correlation (as one variable increases, the other decreases).

Table 4.3: Correlation Analysis (Main Factors)

		RI	ER	IR
RI	Pearson Correlation	1	-.046	.769**
	Sig. (2-tailed)		.519	.000
	N	200	200	200
ER	Pearson Correlation	-.046	1	-.014
	Sig. (2-tailed)	.519		.841
	N	200	200	200
IR	Pearson Correlation	.769**	-.014	1
	Sig. (2-tailed)	.000	.841	
	N	200	200	200

**, Correlation is significant at the 0.01 level (2-tailed).

Source: Developed by Author

13. The correlation analysis reveals significant positive relationships among 'Retention intention' and 'Intrinsic Rewards', with all correlations significant at the 0.01 level. 'Retention intention' is strongly correlated with Intrinsic Rewards of middle grade officers ($r = .769$), while 'Extrinsic Rewards' shows negative correlations with retention ($r = -.046$), suggesting that there is no any significant impact on the retention intention. The strong positive correlations across intrinsic rewards and retention intention suggest that other key independent variable may create a significant impact in case. These high correlations validate the interconnectedness of these factors and underscore their importance in understanding retention intention of middle grade officers and their motivation.

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14. In order to further identify the relationship between ‘Extrinsic Rewards’ related sub factors, the analysis identified the correlation as following table.

Table 4.4: Correlation Analysis (ER and FC, CA and JS)

Correlations

		ER	FC	CA	JS
ER	Pearson Correlation	1	.855**	.898**	.677**
	Sig. (2-tailed)		.000	.000	.000
	N	200	200	200	200
FC	Pearson Correlation	.855**	1	.677**	.332**
	Sig. (2-tailed)	.000		.000	.000
	N	200	200	200	200
CA	Pearson Correlation	.898**	.677**	1	.481**
	Sig. (2-tailed)	.000	.000		.000
	N	200	200	200	200
JS	Pearson Correlation	.677**	.332**	.481**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	200	200	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Developed by Author

15. The correlation analysis reveals significant positive relationships among ‘Extrinsic Rewards’ and all three factors, with all correlations significant at the 0.01 level. ‘FC’ is strongly correlated with Extrinsic Rewards of middle grade officers ($r = .855$), similarly, ‘Career Advancement (CA) also strongly correlated with Intrinsic Rewards of middle grade officers ($r = .898$). However, relationship between ‘ER’ and JS seems moderate at 0.01 level. **Overall, the correlation between sub factors of ‘ER’ and ‘RI-dependent variable’ seems comparatively low** (see Annex A).

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16. The relationship between ‘Intrinsic Rewards’ related sub factors, the analysis identified the correlation as following table.

Table 4.5: Correlation Analysis (IR and R, PG and SA)

		IR	R	PG	SA
IR	Pearson Correlation	1	.877**	.874**	.871**
	Sig. (2-tailed)		.000	.000	.000
	N	200	200	200	200
R	Pearson Correlation	.877**	1	.596**	.734**
	Sig. (2-tailed)	.000		.000	.000
	N	200	200	200	200
PG	Pearson Correlation	.874**	.596**	1	.619**
	Sig. (2-tailed)	.000	.000		.000
	N	200	200	200	200
SA	Pearson Correlation	.871**	.734**	.619**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	200	200	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Developed by Author

17. The correlation analysis reveals significant positive relationships among ‘Intrinsic Rewards’ and ‘Recognition (R)’, with all correlations significant at the 0.01 level. ‘Reputation (R)’, ‘Personal Growth (PG)’ and ‘Sense of accomplishment (SA)’ are strongly correlated with Intrinsic Rewards of middle grade officers as ($r = .877$), ($r = .874$) and ($r = .871$) respectively. **Overall, the correlation between sub factors of ‘IR’ and ‘RI-dependent variable’ seems comparatively high** (see Annex A).

Table 4.4: Correlations

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	PS	SS	ES	CB
1	1	4.971	1.000	.00	.00	.00	.00	.00
	2	.022	15.126	.00	.01	.62	.00	.01
	3	.005	30.213	.97	.00	.36	.01	.01
	4	.001	74.594	.02	.34	.01	.13	.96
	5	.001	81.817	.01	.65	.01	.86	.02

a. Dependent Variable: IC

Source: Developed by Author

REGRESSION ANALYSIS

18. The multiple regression analysis highlights the predictive relationship between Intrinsic Rewards, and Intrinsic Rewards, 'Retention Intention'. All two independent variables were entered simultaneously into the model using the "Enter" method, which allows for assessing the combined impact of these predictors on absenteeism.

19. Before proceeding the Regression analysis, it is important to do a Multicollinearity Diagnostic test. This was done to check whether independent variables are highly correlated among themselves or not. The Pearson correlation coefficients from the inter-correlation matrix were found below 0.90 and by comparing Tolerance values and Variance Inflation Factors (VIF). It was found that the tolerance values are below than 0.25 and VIF values are less than 5. Therefore, Tolerance values and VIF values are within the expected range that prevent the multicollinearity. The multicollinearity in the model, defines the dependency of variables. Therefore, the multi-regression analysis can be carried out.

Table 4.5: VIF Value

Coefficients^a

Model	Collinearity Statistics	
	Tolerance	VIF
1 IR	.954	1.048
ER	.954	1.048

a. Dependent Variable: RI

Source: Created by researcher

Table 4.6: Residuals Statistics

Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	3.2977	5.0253	4.3100	.37268	200
Residual	-1.50243	.52062	.00000	.30912	200
Std. Predicted Value	-2.716	1.919	.000	1.000	200
Std. Residual	-4.836	1.676	.000	.995	200

a. Dependent Variable: RI

Source: Developed by Author

20. The Std Residual Minimum and Maximum values shall never exceed -3 or + 3. If the exceed, there are outliers in the collected data. If outliers are found, they must be removed from the database and the Regression test shall be done again. The residual value exceeded the commonly accepted threshold of ± 3.25 in minimum. However, when examining the cumulative Intrinsic Reward (IR) and Extrinsic Rewards (ER) variable derived from 12 related items, no outliers were detected in the boxplot (figure 3 and 4), suggesting that the case does not represent an extreme value in the original data distribution.

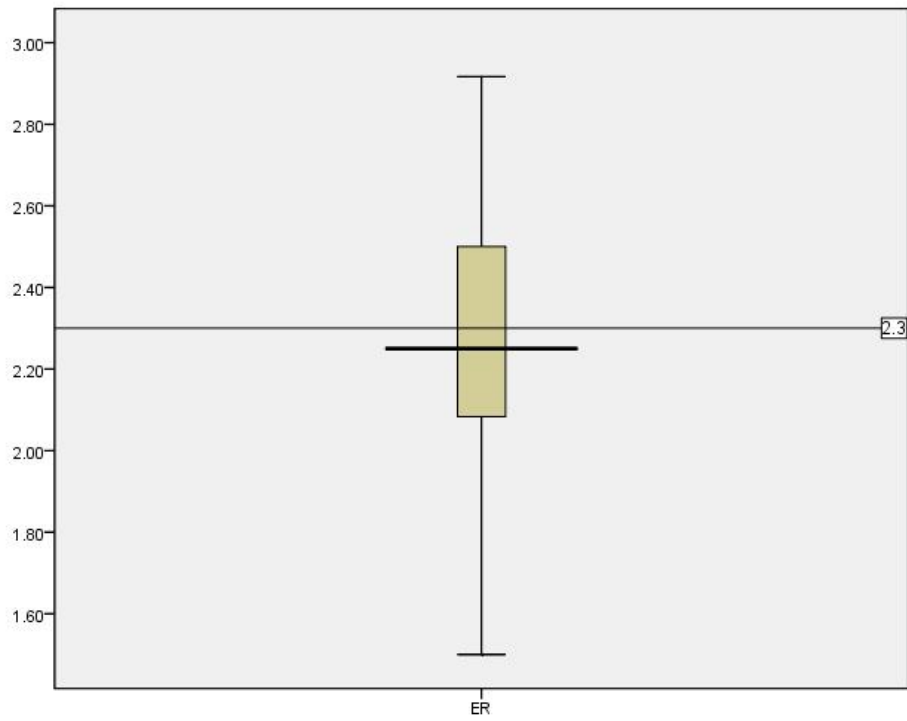


Figure 4.2: Boxplot for Cumulative ER (Extrinsic Rewards)

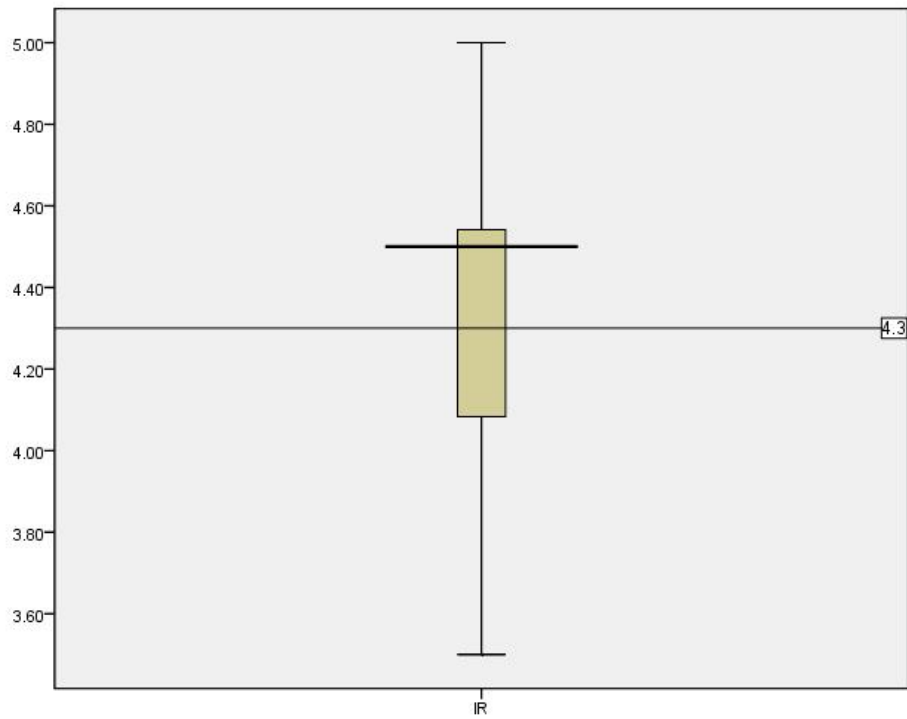


Figure 4.3: Boxplot for Cumulative IR (Intrinsic Rewards)

21. In the regression, one case case shows a standardized residual value of -4.836, which is exceeding the normally accepted threshold of ± 3.25 . This indicates a potential outlier in terms of model fit. Nevertheless, when examining the cumulative Intrinsic Rewards (IR) variable derived from 12 relevant items (questions), no any outliers were detected in the boxplot. This suggests that the case does not represent an extreme value in the original data distribution. In order to assess the influence of this outlier that make impact on regression model, Cook's Distance was calculated. The results showed that all Cook's Distance values were below 0.5, well under the critical threshold of 1.0, indicating that no single case, including the one with the high residual, had a substantial influence on the overall model estimates. Therefore, while the case is an outlier in terms of prediction error, it is not influential, and was retained in the final analysis.

SCATTER PLOT TEST

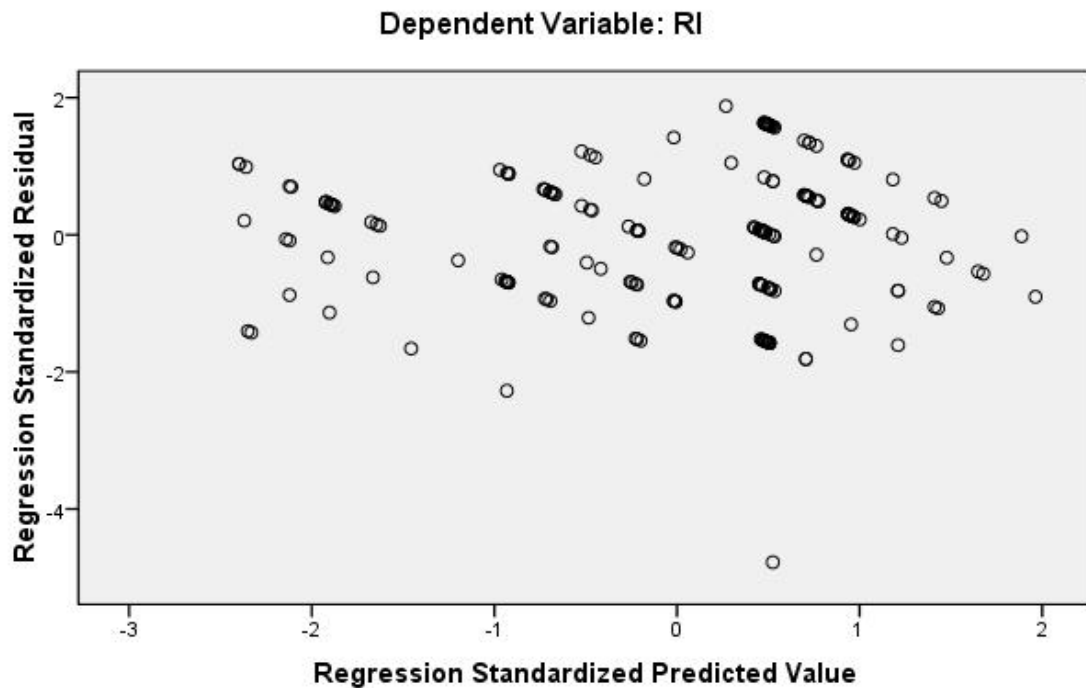


Figure 4.4: Scatter Plot Test
Source: Developed by Author

22. A scatterplot test was done to test whether plots of chart are nicely distributed on the positive side and the negative side of a zero horizontal line. However, plots are

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distributed equally within +3.25 and -3.25, yet one outlier can be identified above the 4. Considering the, stepwise.

Table 4.7: Model Summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.770 ^a	.592	.588	.31068	.592	143.176	2	197	.000	2.137

a. Predictors: (Constant), IR, ER

b. Dependent Variable: RI

Source: Developed by Author

23. Table 4.7 presents a summary of the model in which the item of interest is the R square statistics, which is .963 with a statistical significance of $P < .05$. This suggest that 56.2% of the variants in the job retention (outcome) was predicted from intension to retention. R (correlation coefficient) measures the strength and direction of liner relationship between independent variables and the dependent variables. This is a moderately strong positive relationship. The Durbin-Watson statistic was 2.137 and between +1 and +3 which means that, the independence of the observation has been met. In the analysis R square (coefficient determination) is .592 or 59.2% with a statistical significance of $P < 0.05$. That's mean 96% of the Retention Intention was predicted from the level of variables. It shows a good level of prediction.

The following table 4.4 shows the F-ratio in the ANOVA table test whether the overall regression model is a good fit for the data.

Table 4.8: Model Summary

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ANOVA^b

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.640	2	13.820	143.176	.000 ^a
	Residual	19.015	197	.097		
	Total	46.655	199			

a. Predictors: (Constant), IR, ER

b. Dependent Variable: RI

Source: Developed by Author

24. The table shows that the independent variables (Psychological State, Social State, Economic State, and Adequacy of Compensate and Benefits) statistically significantly predict the dependent variable (Retention Intention), $F(2,197) = 143.176$, $P < .0005$. This regression model is a good fit of the data.

25. Further unstandardized coefficient indicate how much the dependent variables varies with an individual variable when all other independent variables are held constant.

Table 4. 9: Model Summary

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-.052	.316	-.163	.871
	ER	-.055	.072	-.035	.444
	IR	1.037	.061	.768	.000

a. Dependent Variable: RI

Source: Developed by Author

Considering the above table 4.5, the unstandardized coefficient, B1 for ER is equal to -.055. This means that for each one unit increase in intrinsic rewards, there is an increase in

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job retention of 1.037unit/values, which indicate a strong positive impact. The unstandardized coefficient, B2 for ER is equal to -0.055 means that for each one unit increase in extrinsic rewards, there is a decrease in job retention intension of 0.055 units. This suggests a weak or negative relationship. The constant value is -0.052 suggests that the anticipated value for job retention when both intrinsic and extrinsic rewards are zero. Furthermore, the significance value (p-value) for IR is 0.000, which attributes that the relationship between intrinsic rewards and job retention is statistically significant. In contrast, the p-value foe ER is 0.444, which indicates that of extrinsic rewards on job retention is not statistically significant. Therefore, the findings suggest that intrinsic rewards have a strong and significant positive impact on employee retention, while extrinsic rewards do not significantly influence retention in this model.

$$Y = .000 + (-.052)X_1 + (1.037)X_2$$

HYPOTHESES TESTING

Table 4.10: Hypothesis Testing

One-Sample Test

	Test Value = 3					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
RI	38.262	199	.000	1.31000	1.2425	1.3775
ER	-31.981	199	.000	-.69125	-.7339	-.6486
IR	52.436	199	.000	1.33083	1.2808	1.3809

Source: Developed by Author

26. Based on the provided t-test values, it appears that there are significant differences between the groups being compared. The t values for **ER** (-31.981), and **IR** (52.436) are very high, indicating substantial differences between these groups.

27. The regression analysis reveals that extrinsic rewards have a negative and statistically insignificant effect on job retention ($p = 0.444 > 0.05$). Therefore, H_1 is not supported. Furthermore, the one-sample t-test confirms that responding participants identify extrinsic rewards as insufficient, with a mean significantly lower compared to neutral value ($p < 0.05$). Such dissatisfaction might explain the weak influence of ER on retention. Therefore, **H1 is rejected** as there is no significant positive influence of extrinsic rewards on job retention.

29. The regression analysis of the study shows a strong, positive and statistically significant effect of intrinsic rewards or values on job retention ($B = 1.037$, and $p = 0.000$). Consequently, H_2 is strongly supported. Furthermore, the one-sample t-test defines that intrinsic rewards are valued meaningfully higher than neutral, signifying that military personnel perceive these rewards as present and meaningful way. Therefore, **H2 is accepted** as intrinsic rewards have a significant positive influence on job retention.